UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,872	09/25/2003	Farni Weaver	2244	5789

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28005	7590	07/06/2005	PHUONG, DAI

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DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,10-25,28-30,33 and 34* is/are rejected.

7)☐ Claim(s) *7,9,26,27,31 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1, 4-6, 8, 10-12 and 15-25 are rejected under 35 U.S.C. 102(e) as being

anticipated by Raith (Pub. No: 2005/0101333).

Regarding claim 1, Raith discloses a method comprising: determining a current location

of a mobile station ([0005]. Specifically, Raith recites a reference position for the point of

interest is stored in the mobile terminal for comparison with **the current position of the mobile

terminal**); making a comparison of the current location to a designated location ([0005].

Specifically, Raith recites a reference position for the point of interest is stored in the mobile

terminal for comparison with **the current position of the mobile terminal**); and based on the

comparison, computing a next time to determine an updated location of the mobile station

([0017]. Specifically, Raith recites the present invention relates to a method for controlling the

**position update frequency of the position estimator 50 based on the distance of the mobile

terminal 20 relative to a specific point of interest**).

Regarding claim 4, Raith discloses all the limitation in claim 1. Further, Raith discloses

the method wherein making the comparison comprises estimating a distance between the current

location and the designated location ([0005]. Specifically, Raith recites a reference position for

the point of interest is stored in the mobile terminal for **comparison** with the current position of the mobile terminal).

Regarding claim 5, Raith discloses all the limitation in claim 4. Further, Raith discloses the method wherein computing the next time to determine the updated location of the mobile station comprises estimating a **time interval** to travel the distance between the current location and the designated location ([0018]. Specifically, Raith recites the mobile terminal 20 adjusts the **position update frequency** as needed based on the computed distance D, velocity V, or a **combination of the distance D and velocity V**. It should be noted that distance D and velocity V relate with time. Inherently, the mobile terminal 20 computes a time interval to travel between the current position of the mobile terminal 20 and the reference point by using the combination of distance and velocity. However, there are couple formulas to compute the travel time relate to distance and velocity).

Regarding claim 6, Raith discloses all the limitation in claim 5. Further, Raith discloses the method wherein estimating the time interval to travel the distance between the current location and the designated location comprises using a predefined travel time that corresponds to traveling the distance between the current location and the designated location ([0018]).

Regarding claim 8, Raith discloses all the limitation in claim 1. Further, Raith discloses the method wherein making the comparison comprises estimating a time interval to travel from the current location to the designated location ([0018]. Specifically, Raith recites the mobile terminal 20 adjusts the **position update frequency** as needed based on the computed distance D, velocity V, or a **combination of the distance D and velocity V.**).

Regarding claim 10, Raith discloses all the limitation in claim 8. Further, Raith discloses the method further comprising, if the time interval is more than a predetermined amount, determining the updated location of the mobile station at a predetermined time interval ([0018]).

Regarding claim 11, Raith discloses all the limitation in claim 8. Further, Raith discloses the method further comprising, if the time interval is less than a predetermined amount, determining the updated location of the mobile station at a predetermined time interval ([0018]).

Regarding claim 12, Raith discloses all the limitation in claim 8. Further, Raith discloses the method further comprising, if the time interval is between a first threshold and a second threshold, determining the updated location of the mobile station at a predetermined time interval ([0018]).

Regarding claim 15, Raith discloses all the limitation in claim 1. Further, Raith discloses the method wherein computing the next time to determine the updated location of the mobile station comprises computing a time period ([0018]. Specifically, Raith recites the mobile terminal 20 adjusts the **position update frequency** as needed based on the computed distance D, velocity V, or a **combination of the distance D and velocity V**.)

Regarding claim 16, Raith discloses all the limitation in claim 15. Further, Raith discloses the method further comprising determining the updated location of the mobile station once the time period expires ([0018]).

Regarding claim 17, Raith discloses all the limitation in claim 1. Further, Raith discloses the wherein computing the next time to determine the updated location of the mobile station wherein comprises computing a time of day ([0018]).

Regarding claim 18, Raith discloses all the limitation in claim 17. Further, Raith discloses the method further comprising determining the updated location of the mobile station at the time of day ([0018]).

Regarding claim 19, Raith discloses all the limitation in claim 1. Further, Raith discloses the method further comprising repeating the steps until the mobile station is located within a range of the designated location ([0031]. Notice that, the mobile terminal 20 adjusts the position update frequency as the mobile moves closer or farther from the reference point, PWTS 200, by comparing the current of terminal 20 and the reference point. However, the mobile terminal 20 instructs the position estimator 50 to decrease the number of adjusting the position update frequency as the mobile moves within the coverage area).

Regarding claim 20, Raith discloses all the limitation in claim 19. Further, Raith discloses the method wherein the range is a distance ([0028]).

Regarding claim 21, Raith discloses all the limitation in claim 19. Further, Raith discloses the method wherein the range is an amount of time to travel from the current location to the designated location ([0018]).

Regarding claim 22, Raith discloses all the limitation in claim 1. Further, Raith discloses the method further comprising repeating the steps of claim 1 until the mobile station is located at the designated location ([0025] and [0031]).

Regarding claim 23, Raith discloses all the limitation in claim 1. Further, Raith discloses the method further comprising once the next time is less than a threshold, stop repeating the steps of claim 1 ([0018] and [0031]).

Regarding claim 24, Raith discloses all the limitation in claim 1. Further, Raith discloses the method further comprising sending content to the mobile station once the mobile station is located within a range of the designated location ([0023] and [0025]. Inherently, once the mobile terminal 20 is within the coverage area, PWTS 200, the mobile terminal 20 searches for the control channel and then obtain services from facility 20 (fig. 3))

Regarding claim 25, Raith discloses a method comprising:

(a) determining when a mobile station is located within a range of a designated location by: (i) determining a current location of the mobile station ([0018]. Specifically, Raith recites the mobile terminal 20 may take action based on the distance D between **the current position of the mobile terminal** and the reference position), and (ii) if the current location is not within the range, computing a next time to determine an updated location of the mobile station, and at the next time, repeating from step (i) ([0031]); and

(b) responsively sending content that is associated with the designated location to the mobile station when the mobile station is located within the range of the designated location ([0023] and [0025]. Specifically, Raith recites when the position estimator 50 indicates that the mobile terminal 20 is close to a known private system (i.e., the distance from the current position of the mobile terminal 20 and the stored location is less than a predetermined threshold distance), **the mobile terminal 20 may trigger a search for a control channel associated with the PWTS 200 and acquires service with the PWTS 200 if a control channel is found,** please see [0025]. Inherently, once the mobile terminal 20 is within the coverage area, then the mobile terminal 20 searches for the control channel and obtains service from a facility 205).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (Pub.

No: 2005/0101333) in view of Raith (U.S. 6,625,457).

Regarding claim 2, Raith (Pub. No: 2005/0101333) discloses all the limitation in claim

1. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein the determining,

making and computing functions are carried out by a network server, and wherein determining

the current location of the mobile station comprises receiving from a location determination

system an indication of the current location of the mobile station.

In the same field of endeavor, Raith (U.S. 6,625,457) discloses the method wherein the

determining, making and computing functions are carried out by a network server, and wherein

determining the current location of the mobile station comprises receiving from a location

determination system an indication of the current location of the mobile station (col. 3, lines 50-

55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by

specifically including determining, making and computing functions are carried out by a network

server, and wherein determining the current location of the mobile station comprises receiving

from a location determination system an indication of the current location of the mobile station,

as taught by Raith (U.S. 6,625,457), the motivation being in order to update the location database

which can be downloaded by the mobile terminal from the mobile communication network.

Regarding claim 3, Raith (Pub. No: 2005/0101333) discloses all the limitation in claim

1. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein the determining,

making and computing functions are carried out by the mobile station, and wherein determining

the current location of the mobile station comprises: sending a position determination request

into a network; and receiving from the network an indication of the current location of the

mobile station.

In the same field of endeavor, Raith (U.S. 6,625,457) discloses the method wherein the

determining, making and computing functions are carried out by the mobile station, and wherein

determining the current location of the mobile station comprises: sending a position

determination request into a network; and receiving from the network an indication of the current

location of the mobile station (col. 7, lines 4-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by

specifically the determining, making and computing functions are carried out by the mobile

station, and wherein determining the current location of the mobile station comprises: sending a

position determination request into a network; and receiving from the network an indication of

the current location of the mobile station, as taught by Raith (U.S. 6,625,457), the motivation

being in order to update the location database which can be downloaded by the mobile terminal

from the mobile communication network.

5.   Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (Pub. No: 2005/0101333) in view of Dekock et al. (Pub. No: 2004/0267440)

Regarding claim 13, Raith (Pub. No: 2005/0101333) discloses all the limitation in claim 8. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein estimating the time interval comprises: requesting the time interval from a geoserver; and receiving the time interval from the geoserver.

In the same field of endeavor, Dekock et al. disclose the method wherein estimating the time interval comprises: requesting the time interval from a geoserver; and receiving the time interval from the geoserver ([0060]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including estimating the time interval comprises: requesting the time interval from a geoserver; and receiving the time interval from the geoserver, as taught by Dekock et al., the motivation being in order to provide traffic information to a plurality of users.

Regarding claim 14, the combination of Raith (Pub. No: 2005/0101333) and Dekock et al. disclose all the limitation in claim 13. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein requesting the time interval from the geoserver comprises sending information indicative of the current location and the designated location to the geoserver.

In the same field of endeavor, Dekock et al. disclose the method wherein requesting the time interval from the geoserver comprises sending information indicative of the current location and the designated location to the geoserver ([0060]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including requesting the time interval from the geoserver comprises sending information indicative of the current location and the designated location to the geoserver, as taught by Dekock et al., the motivation being in order to provide traffic information to a plurality of users.

6.   Claims 28-30 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (Pub. No: 2005/0101333) in view of Ross et al. (Pub. No: 2004/0137886)

Regarding claim 28, Raith (Pub. No: 2005/0101333) discloses all the limitation in claim 25. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein sending content that is associated with the designated location to the mobile station comprises sending a short message service (SMS) message to the mobile station.

In the same field of endeavor, Ross et al. disclose the method wherein sending content that is associated with the designated location to the mobile station comprises sending a short message service (SMS) message to the mobile station ([0025]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including sending content that is associated with the designated location to the mobile station comprises sending a short message service (SMS) message to the mobile station, as taught by Ross et al., the motivation being in order to distribute advertisements and coupons in electronic form over a network to people through their wireless device.

Regarding claim 29, Raith (Pub. No: 2005/0101333) discloses all the limitation in claim 25. But, Raith (Pub. No: 2005/0101333) does not disclose the method wherein sending content that is associated with the designated location to the mobile station comprises sending a wireless application protocol (WAP) push message to the mobile station.

In the same field of endeavor, Ross et al. disclose the method wherein sending content that is associated with the designated location to the mobile station comprises sending a wireless application protocol (WAP) push message to the mobile station ([0025]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including disclose sending content that is associated with the designated location to the mobile station comprises sending a wireless application protocol (WAP) push message to the mobile station, as taught by Ross et al., the motivation being in order to distribute advertisements and coupons in electronic form over a network to people through their wireless device.

Regarding claim 30, Raith (Pub. No: 2005/0101333) discloses a system comprising: wherein the location determining element determines when the mobile station is located within the range by performing a process comprising: (i) determining a current location of the mobile station ([0018]. Specifically, Raith recites the mobile terminal 20 may take action based on the distance D between **the current position of the mobile terminal** and the reference position), and (ii) if the current location is not within the range, computing a next time to determine an updated location of the mobile station, and at the next time, repeating from step (i) ([0031]). But, Raith (Pub. No: 2005/0101333) does not disclose a system comprising: a content serving element that stores content associated with a designated location and sends the content to a

mobile station when the mobile station is located within a range of the designated location; a location determining element arranged to: (a) determine when the mobile station is located within the range; and (b) responsively inform the content serving element when the mobile station is located within the range.

In the same field of endeavor, Ross et al. disclose a system comprising: a content serving element that stores content 406 associated with a designated location and sends the content to a mobile station when the mobile station is located within a range of the designated location (fig. 1 and fig. 5, [0032] and [0033]); a location determining element arranged to: (a) determine **when** the mobile station is located within the range ([0032]. Specifically, Ross et al. recite the application determines the travel times between the current locations of the wireless mobile terminals and the seller's physical location based on the traffic information. Using the estimated travel times and current time of day, the application then **determines estimated arrival times** for the wireless terminal based on the travel times); and (b) responsively inform the content serving element **when** the mobile station is located within the range ([0033]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including a content serving element that stores content associated with a designated location and sends the content to a mobile station when the mobile station is located within a range of the designated location; a location determining element arranged to: (a) determine when the mobile station is located within the range; and (b) responsively inform the content serving element when the mobile station is located within the range, as taught by Ross et al., the

motivation being in order to distribute advertisements and coupons in electronic form over a network to people through their wireless devices.

Regarding claim 33, the combination of Raith (Pub. No: 2005/0101333) and Ross et al. disclose all the limitation in claim 30. But, Raith (Pub. No: 2005/0101333) does not disclose the system, wherein the content serving element includes a plurality of content, where each content is associated with a respective designated location, and wherein given content is sent to the mobile station once the mobile station is approximately located at the respective designated location of the given content.

In the same field of endeavor, Ross et al. disclose the system, wherein the content serving element 204 includes a plurality of content ([0055]), where each content is associated with a respective designated location ([0033] and [0055]), and wherein given content is sent to the mobile station once the mobile station is approximately located at the respective designated location of the given content ([0033]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including the content serving element includes a plurality of content, where each content is associated with a respective designated location, and wherein given content is sent to the mobile station once the mobile station is approximately located at the respective designated location of the given content, as taught by Ross et al., the motivation being in order to distribute advertisements and coupons in electronic form over a network to people through their wireless devices.

Regarding claim 34, the combination of Raith (Pub. No: 2005/0101333) and Ross et al. disclose all the limitation in claim 30. But, Raith (Pub. No: 2005/0101333) does not disclose the system wherein the content is selected from the group consisting of advertisements, solicitations, and coupons.

In the same field of endeavor, Ross et al. disclose the system wherein the content is selected from the group consisting of advertisements, solicitations, and coupons ([0026]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mobile terminal of Raith (Pub. No: 2005/0101333) by specifically including disclose the system wherein the content is selected from the group consisting of advertisements, solicitations, and coupons, as taught by Ross et al., the motivation being in order to distribute advertisements and coupons in electronic form over a network to people through their wireless devices.

Reasons for Allowance

7.   The following is an examiner's statement of reasons for allowance:

Claims 27 and 32 are objected as dependent on claims 26 and 31 respectively.

Regarding claim 7

Claim 7 is objected to as being dependent upon a rejected base claim 6, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made of record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest

the method wherein computing the **next time to determine the updated location** of the mobile

station comprises **calculating a percentage of the predefined travel time.**

Regarding claim 9

Claim 9 is objected to as being dependent upon a rejected base claim 8, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made of

record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest

the method wherein computing the next time to determine the updated location of the mobile

station comprises **calculating a percentage of the time interval.**

Regarding claim 26

Claim 26 is objected to as being dependent upon a rejected base claim 25, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made

of record and considered pertinent to the applicant's disclosure does not disclose nor fairly

suggest the method wherein computing the next time to determine the updated location of the

mobile station comprises: estimating a travel time required for the mobile station to travel from

the current location to the designated location; and **calculating a percentage of the travel time.**

Regarding claim 31

Claim 31 is objected to as being dependent upon a rejected base claim 30, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made of record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest the system wherein the location determining element computes the next time to determine the updated location of the mobile station by: estimating a travel time required for the mobile station to travel from the current location to the designated location; and **calculating a percentage of the travel time.**

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tognazzini (U.S. 5790974) portable calendaring device

Croft et al. (U.S. 6078826) mobile power savings responsive to mobile location

Saraga et al. (U.S. 6745125) travel related information to mobile device

Zhou et al. (U.S. 6847892) localizing and sensing objects

Bhaumick (Pub. No: 20040248546) location update networks

Balachandran et al. (Pub. No: 20040259546) locating a wireless local area network

Sheha et al. (Pub. No: 20050075119) estimation and predictive route generation

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..
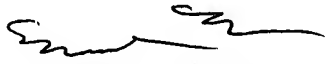
   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong
AU: 2685
Date: 06-23-2005

EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2300